

Date: Tue, 5 Oct 93 04:30:20 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #68
To: Ham-Ant

Ham-Ant Digest Tue, 5 Oct 93 Volume 93 : Issue 68

Today's Topics:

1/4 wave vs 5/8 wave
2/70 beam project wanted
Bilal Isotron Antennas
Mobile Antennas (2 msgs)
More on commercial verticals
Problem with Diamond SG7900
Short Backfire Antenna Information

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>

Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 4 Oct 93 20:59:48 GMT
From: news-mail-gateway@ucsd.edu
Subject: 1/4 wave vs 5/8 wave
To: ham-ant@ucsd.edu

> Sorry guys I am a CB operator. Just wondering if I can get
> some good information on 1/4 wave antennas and 5/8 wave antennas,
> preferably omnidirectional type. Currently, I have a 1/4 wave
> Antron-99 and was planning on upgrading on a 5/8 wave due to some
> overall wave pattern efficiencys. Would it make a big difference on
> my setup when properly grounded??

A 1/4 wave antenna radiates a round pattern, sending some energy almost
straight up into the sky and some energy down into the ground. The 5/8
wave antenna sort of squishes the radiation pattern. The energy that
was going into up into the sky and down into the earth is directed more

perpendicular to the antenna.

Since both antennas are verticals, both are omnidirectional. The 5/8 wave just takes the wasted energy and directs it in a more desirable direction. In fact, the 5/8 wave has about 3db gain or radiates about twice the amount of energy perpendicular to the antenna then the 1/4 wave antenna.

73 (best regards)
de km6wt, mont@ibmmail.com

Date: 3 Oct 93 01:37:01 GMT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!howland.reston.ans.net!
spool.mu.edu!nigel.msen.com!hela.iti.org!widener!dsinc!netnews.upenn.edu!
netnews.cc.lehigh.edu!lafcol!murrayp@network.ucsd.
Subject: 2/70 beam project wanted
To: ham-ant@ucsd.edu

Ted Cline (tccline@hplvec.LVLD.HP.COM) wrote:

: > In rec.radio.amateur.antenna, Rick Aldom <ayka60@email.sps.mot.com> writes:
: >
: > Hi I would like some plans from someone who has built and likes their
: > dual band beam.....(if it is at all possible to combine them). I would
: > like an antenna that can be taken down and transported in a small vehicle
: > and set up when camping. Has anyone seen an animal like what I have
: > described? Thanks again for the assistance.....BTW if you have a a mono
: > band beam that really trips your trigger I would love to see those plans
: > also.
: >
: > I have seen some "arrow" antennas, and since I am an archer, this seems
: > like a good place to start.....Thanks again
: >
: > Rick Aldom
: > ayka60@email.sps.mot.com

I had been tossing about the idea of a 2m/70cm cubical quad design, with each band having a common axis, but elements within one another. Perhaps an 11 element 70cm beam within a 2m beam...perhaps?
I would think that having elements within elements would minimize radiation pattern disruptions..but am I missing anything?
I haven't any written down plans for such a device, but if there were found no critical flaws in such a design, I would be willing to work something out on paper (on computer, actually).

-Pete

Pete Murray (N3IXY)
Lafayette College
murrayp@lafcol.lafayette.edu

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Date: 5 Oct 93 03:46:17 GMT
From: ogicse!uwm.edu!cs.utexas.edu!sdd.hp.com!spool.mu.edu!news.nd.edu!
mac22@network.ucsd.edu
Subject: Bilal Isotron Antennas
To: ham-ant@ucsd.edu

Has anyone on the Net had any experience with Bilal Isotron Antennas? The compactness of the designs appeals to me, especially in the case of those bands for which dipoles would require a lot of space (e.g., 160 and 80 meters).

TNX de N9SQE

Charles Hohenstein

Date: 4 Oct 93 23:00:25 GMT
From: news-mail-gateway@ucsd.edu
Subject: Mobile Antennas
To: ham-ant@ucsd.edu

Just a quick question about mobile antennas. I'm setting up a temporary HF station in my pick-up truck and wanted to get some feedback on my antenna system. I've been thinking of going with one of those tri-magnet mag mounts and hamstick resonators for 40,20 and 15 meters. Well, any experiences out there? Good, bad, ugly? I would welcome any feedback.

Tnx 73

Rob Ontiveros rontiver@sceng.ub.com
KC6ZTT

Date: Tue, 5 Oct 1993 04:28:14 GMT
From: swrinde!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!usenet.ins.cwru.edu!
news.ecn.bgu.edu!feenix.metronet.com!henrys@network.ucsd.edu
Subject: Mobile Antennas
To: ham-ant@ucsd.edu

Rob_Ontiveros_at_Notes-Gate@sceng.UB.COM wrote:

: Just a quick question about mobile antennas. I'm setting up a temporary
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: Tnx 73

: Rob Ontiveros rontiver@sceng.ub.com
: KC6ZTT

The bugcatcher can tune 80 to 10 meters without all of the resonators and
generally outperforms the others.

It is a heavy antenna and would need a fairly heavy mount. A bumper
mount works well.

Good luck.

Smitty NA5K/M

--

Henry B. Smith - NA5K	henrys@feenix.metronet.com
1380 Camino Real	Home phone (214) 562-3049
McKinney, TX 75069	Office phone (214) 333-6077

Date: Mon, 4 Oct 1993 16:52:40 GMT
From: concert!news-feed-2.peachnet.edu!umn.edu!csus.edu!netcom.com!
greg@decwrl.dec.com
Subject: More on commercial verticals
To: ham-ant@ucsd.edu

The literature for which I was waiting arrived from Butternut on Friday.

I made interesting reading. It was really devoted to debunking two claims,
made by both Cushcraft and MFJ, regarding their vertical antennas.

The first attacks the two companies' term 'ground losses' as they use it in their advertising. There is a long discussion of feed-point impedance and efficiency which is really rather interesting.

The second issue which Butternut takes with MFJ and Cushcraft is their use of the term 'half-wave' to apply to antennas which are shorter in physical length than Butternut's and in the case of Cushcraft, their own, quarter-wave antennas for the same bands! This, to my mind, is the killer. Butternut's right: on 40 meters, there is no way that 26 feet (Cushcraft) or 12 feet (MFJ) is anything like equivalent to a true half-wave radiator. The hucksters are claiming that a stub with a loading coil is as good as a real antenna. Butternut points out, rightly, that we all ought to know better.

Essentially, the Cushcraft and MFJ products are nothing but shortened trap dipoles turned on end. Therefore they have all the inefficiencies and problems of a trap dipole. What they lack, however, is the ability to make effective use of a really good ground plane.

Butternut's final point is this: in a peak sunspot period it's easy to make all sorts of claims about an antenna, and back it up with anecdotal evidence of contacts made on what is in reality halfway to being a dummy load. With this, I must also agree. Last year, running only about 25 watts, my attic-mounted ISOLLOOP worked like gangbusters.

What I think they are trying to do, however, is to bring us back to antenna, and particularly vertical antenna fundamentals.

I'd recommend sending for their write-up. The address is in the ham rags, and it is a dozen pages of interesting reading.

Greg

Date: 3 Oct 93 01:49:33 GMT
From: swrinde!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!spool.mu.edu!
nigel.msen.com!hela.iti.org!widener!dsinc!netnews.upenn.edu!netnews.cc.lehigh.edu!
lafcol!murrayp@network.ucsd.edu
Subject: Problem with Diamond SG7900
To: ham-ant@ucsd.edu

With all the driving I do between work and home, I wanted to get a good antenna for the car, so I splurged and bought the mobile whip I'd wanted for a while, the Diamond SG7900. The performance is absolutely outstanding, up until recently. I've started to notice that transmit and receive have really fallen off on the UHF side of the antenna, for no obvious reason. All the pieces were making good contact with one

another, there were no dirty connections. I finally consulted with a friend who had the same antenna, and discovered the problem was with tuned circuit for the 70cm side (2m seems okay..).
Any recommendations on how to get in touch with Diamond? The antenna is still under warranty, and I'd like to get the bottommost part of the unit replaced, but I figure they will want the whole thing.

Does anyone have:

a: recommendations on how to fix this problem besides dealing with Diamond? Easy fixes of the circuit?

B: if not a:, then how to call Diamond?

Any and all info much appreciated....

Thanks.

-Pete

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Pete Murray (N3IXY)
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Date: Mon, 04 Oct 1993 12:51:11 GMT
From: mcsun!ieunet!ieunet!iol!jquinn@uunet.uu.net
Subject: Short Backfire Antenna Information
To: ham-ant@ucsd.edu

Could anyone with any detailed information on the short backfire antenna please post it to me at either 9210466@itdsrv1.ul.ie or jquinn@iol.ie.
I am interested in any information/experiences you might have with stacking these antennas. Also there was some research done by a German researcher named Ehrenspeck. I would be extremely interested in getting my hands on any of his papers or correspondances.
Any information would be appreciated.
-John.

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| John Quinn Ireland on Line Internet: jquinn@ulysses.iol.ie |
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End of Ham-Ant Digest V93 #68
